

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) An illumination device, comprising:

a light source; and

a planar illuminator for illuminating an illuminated object by emitting light of the light source from one surface,

wherein the planar illuminator has a reflection surface, on which minute concavo-convex shapes are substantially randomly formed, and

wherein the light irradiated from the light source is diffusively reflected by the reflection surface thereby to perform surface emission,

wherein the light source is arranged at a side of the planar illuminator, and

wherein a reflection surface of the planar illuminator is a tilted surface that rises as the reflection surface becomes more distant from the light source.

2. (Cancelled)

3. (Previously Presented) The illumination device according to claim 1, wherein a prism-shaped prism sheet is disposed between the reflection surface of the planar illuminator and the illuminated object.

4. (Previously Presented) The illumination device according to claim 3, wherein the prism sheet controls directivity of at least two light components, which travels in different directions in plan view.

5. (Original) The illumination device according to claim 4, wherein the prism sheet has a prism shape where a plurality of polypyramid-shaped or conical protrusions is formed.

6. (Previously Presented) The illumination device according to claim 5, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 70° to 110°.

7. (Previously Presented) The illumination device according to claim 5, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 80° to 100°.

8. (Previously Presented) The illumination device according to claim 5, wherein the protrusions have any one of a quadrangular pyramid, a hexangular pyramid, and an octangular pyramid shape.

9. (Original) The illumination device according to claim 1, wherein the light source is a cold cathode fluorescence lamp.

10. (Original) The illumination device according to claim 1, wherein the light source is an LED or an LED array.

11. (Previously Presented) The illumination device according to claim 1, wherein the light source comprises a substantially rod-shaped light guider and a light emitting element disposed at an end of a longitudinal direction of the light guider,

wherein the light guider introduces light of the light emitting element from one end thereof to an inside thereof and emits the light to an emission surface disposed on one side,

wherein a side opposite to the emission surface of the light guider is curved, and

wherein a plurality of grooves extended to a peripheral direction of the light guider is formed along the curve.

12. (Previously Presented) The illumination device according to claim 11, wherein pitches of the plurality of grooves formed in the light guider gradually become narrower from a side where the light emitting element is disposed and depths of the grooves gradually become deeper.

13. (Original) A liquid crystal display device, wherein the illumination device according to claim 1 is disposed in the rear side of the liquid crystal panel.

14. (New) An illumination device, comprising:

a light source; and

a planar illuminator for illuminating an illuminated object by emitting light of the light source from one surface,

wherein the planar illuminator has a reflection surface, on which minute concavo-convex shapes are substantially randomly formed,

wherein the light irradiated from the light source is diffusively reflected by the reflection surface thereby to perform surface emission, and

wherein a prism-shaped prism sheet is disposed between the reflection surface of the planar illuminator and the illuminated object.

15. (New) The illumination device according to claim 14, wherein the prism sheet controls directivity of at least two light components, which travels in different directions in plan view.

16. (New) The illumination device according to claim 15, wherein the prism sheet has a prism shape where a plurality of polypyramid-shaped or conical protrusions is formed.

17. (New) The illumination device according to claim 16, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 70° to 110°.

18. (New) The illumination device according to claim 16, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 80° to 100°.

19. (New) The illumination device according to claim 16, wherein the protrusions have any one of a quadrangular pyramid, a hexangular pyramid, and an octangular pyramid shape.

20. (New) The illumination device according to claim 14, wherein the light source is a cold cathode fluorescence lamp.

21. (New) The illumination device according to claim 14, wherein the light source is an LED or an LED array.

22. (New) The illumination device according to claim 14,
wherein the light source comprises a substantially rod-shaped light guider and a light emitting element disposed at an end of a longitudinal direction of the light guider,

wherein the light guider introduces light of the light emitting element from one end thereof to an inside thereof and emits the light to an emission surface disposed on one side,

wherein a side opposite to the emission surface of the light guider is curved, and

wherein a plurality of grooves extended to a peripheral direction of the light guider is formed along the curve.

23. (New) The illumination device according to claim 22, wherein pitches of the plurality of grooves formed in the light guider gradually become narrower from a side where the light emitting element is disposed and depths of the grooves gradually become deeper.

24. (New) A liquid crystal display device, wherein the illumination device according to claim 14 is disposed in the rear side of the liquid crystal panel.

25. (New) An illumination device, comprising:

a light source; and

a planar illuminator for illuminating an illuminated object by emitting light of the light source from one surface,

wherein the planar illuminator has a reflection surface, on which minute concavo-convex shapes are substantially randomly formed,

wherein the light irradiated from the light source is diffusively reflected by the reflection surface thereby to perform surface emission,

wherein the light source comprises a substantially rod-shaped light guider and a light emitting element disposed at an end of a longitudinal direction of the light guider,

wherein the light guider introduces light of the light emitting element from one end thereof to an inside thereof and emits the light to an emission surface disposed on one side,

wherein a side opposite to the emission surface of the light guider is curved, and

wherein a plurality of grooves extended to a peripheral direction of the light guider is formed along the curve.

26. (New) The illumination device according to claim 25, wherein pitches of the plurality of grooves formed in the light guider gradually become narrower from a side where the light emitting element is disposed and depths of the grooves gradually become deeper.

27. (New) The illumination device according to claim 25, wherein a prism-shaped prism sheet is disposed between the reflection surface of the planar illuminator and the illuminated object and the prism sheet controls directivity of at least two light components, which travels in different directions in plan view.

28. (New) The illumination device according to claim 27, wherein the prism sheet has a prism shape where a plurality of polypyramid-shaped or conical protrusions is formed.

29. (New) The illumination device according to claim 28, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 70° to 110°.

30. (New) The illumination device according to claim 28, wherein a vertical angle of the polypyramid-shaped or conical protrusion is in the range of 80° to 100°.

31. (New) The illumination device according to claim 28, wherein the protrusions have any one of a quadrangular pyramid, a hexangular pyramid, and an octangular pyramid shape.

32. (New) The illumination device according to claim 25, wherein the light source is a cold cathode fluorescence lamp.

33. (New) The illumination device according to claim 25, wherein the light source is an LED or an LED array.

34. (New) A liquid crystal display device, wherein the illumination device according to claim 25 is disposed in the rear side of the liquid crystal panel.